

1997 ANNUAL EXHIBITION Imperial College, London SW7—25 October 1997

The following account of exhibits has been compiled by A. M. Jones (British butterflies), G. A. Collins (British Macrolepidoptera), D. J. L. Agassiz (British Microlepidoptera), N. M. Hall (Foreign Lepidoptera), P. J. Chandler (Diptera), P. J. Hodge (Coleoptera), M. R. Wilson (Hemiptera), A. J. Halstead (Hymenoptera and other orders), R. Dyke (illustrations). The photographs for the two colour plates were taken by D. E. Wilson and the cost of printing these plates was met by a grant from the Hammond Memorial Fund.

BRITISH BUTTERFLIES

BAILEY K. E. J.—A range of aberrations showing the exhibitor's continuing work with the effects of temperature and changing photoperiods on larvae and freshly formed pupae. From cold shock, a female *Colias croceus* Geoffroy ab. *pseudomas* Cockerell and a male *Colias alfacariensis* Berger with increased melanic borders. *Ladoga camilla* L. ab. *latealba* Verity and ab. *nigrina* Weymer (also subjected to late larval photoperiod change), *Cynthia cardui* L. extreme ab. *rogeri* Meilhan, one having a heavily melanic underside (Plate V, Fig. 11), and *Eurodryas aurinia* Rott. intermediate and extreme ab. *sebaldis* Shultz. From heat shock, a male *Apatura iris* L. approaching ab. *iolata* Cabeau and an extreme melanic *E. aurinia* (Plate V, Fig. 5) which resulted from an escaped larva pupating in a sunny part of a greenhouse during a heat wave. A series of confluent and light melanic *Clossiana dia* L. which had been subjected to prepupal heat shock and pupal cold shock.

Two short series of the genetically recessive ab. *atratus* Bailey of *E. aurinia* comparing the 'typical' examples with the F₂ from a male heterozygous *atratus* and a female of the Spanish subspecies *beckeri* H.-S. showing the diluted expression of *atratus* in the hybrids.

Particularly interesting was an experiment in interspecific hybridization between *Apatura iris* and *Apatura ilia* f. *clytie* D. & S. Male *iris* were hand paired with female *ilia* and from these about 100 ova were laid; many coloured up but only 15 hatched and only 3 commenced feeding and 1 survived the first moult. This developed quickly but pupated prematurely in the fourth instar; the pupation process was assisted as the skin was not fully cast. A small male hybrid emerged ten days later.

Also shown were bred homoeotic specimens of *Colias alfacariensis*, *Eurodryas aurinia* and *Apatura iris*.

BEAUMONT, H. E.—An extreme *Aglais urticae* L. ab. *conjuncta* Neuberg (Plate V, Fig. 7), captured at sedum flowers amongst dozens of typical specimens in the exhibitor's garden at West Melton, Rotherham, S. Yorks.

PLATE V ANNUAL EXHIBITION 1997

1	2	3
	4	5
6		7
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10		11

- 1: *Coenonympha pamphilus* ab. *alba*, Ashdown Forest, E. Sussex, 22.vii.56, R.C. Dennis.
 2: *Aphantopus hyperanthus* ab. *pallens*+ab. *caeca*, Wilts, bred F₄, June 1994, M. Callow.
 3: *Quercusia quercus*, homeotic, bred, Surrey, 16.vi.97, A.M. Jones. 4: *Vanessa atalanta*, ab. *millierei*, Ilkley Moor, West Yorks, 7.ix.97, D. & M. Leather. 5: *Eurodryas aurinia*, extreme melanic, bred, vi.1997, K.E. J. Bailey. 6: *Boloria selene*, ab. *nigricans*, temperature shock to pupae, bred 25.v.97, P. Tebbutt. 7: *Aglais urticae*, extreme melanic, West Melton, Rotherham, S. Yorks, 17.ix.97, H.E. Beaumont. 8: *Aphantopus hyperanthus*, ab. *lanceolata*, upperside, bred F₄, Sussex, 1997, A. S. Harmer. 9: *Aphantopus hyperanthus*, ab. *lanceolata*, underside, bred F₂, Sussex, 1997, A. S. Harmer. 10: *Pieris rapae*, female, ab. *fuscata*, Northants, 5.ix.97, P. Horsnail exhib. P. Tebbutt. 11: *Cynthia cardui*, extreme melanic, underside, cold shock, bred, x.1996, K.E. J. Bailey.

CALLOW, M.—A bred series of *Aphantopus hyperantus* L. ab. *pallens* Schultz. including combined examples with ab. *arete* Müller and ab. *caeca* Fuchs (Plate 1, Fig. 2). These emerged unexpectedly in the F₄ generation from an *arete* female. The brood consisted of 76 specimens, 14 *pallens*, 13 *arete*, 7 *pallens* + *arete*, 1 *pallens* + *caeca* and 41 completely typical.

DENNIS, R. C.—Examples of *Coenonympha pamphilus* L. taken during the past forty years by the exhibitor and the late R. C. Griffiths showing some of the aberrational forms that can occur; these included ab. *caeca* Ober., ab. *brunnescens* Leeds, ab. *postexcessa* Leeds, and the rare ab. *alba* Pruffer taken at Ashdown Forest, E. Sussex, 22.vii.1956 (Plate V, Fig. 1).

Argynnis paphia L. f. *valesina* Esper, a short series showing graduated ground colour variation from whitish-yellow, ab. *valesina-alba* Reuss, to the dark form ab. *valesina-miranda* Fischer (taken July 1997).

FENSOME, B.—A selection of specimens taken or bred in 1997 including *Lysandra coridon* Poda ab. *ultrafowleri* B. & L. and ab. *khaki* B. & L., *Maniola jurtina* L. ab. *nigrianira* Johnstone and *Anthocaris cardamines* L., a mixed gynandromorph captured in the exhibitor's hands whilst walking his dog. A short series of *Lycaena phlaeas* L. included a darkly suffused specimen.

HARMER, A. S.—The results of breeding from a female *Aphantopus hyperantus* L. ab. *lanceolata* Shipp taken in 1995, a wild male *lanceolata* having been introduced into the F₁ pairings. The resulting F₂ consisted of 91 typical males, 104 typical females, 48 male and 40 female *lanceolata*. The *lanceolata* showed considerable variation with some also being ab. *crassipuncta* Burkhardt (Plate V, Figs 8 & 9). Other aberrations from the F₁ and F₂ included an ab. *crystopharis* Collier.

Also exhibited was a bred female *Lycaena dispar batavus* Oberthür with the median spots almost fused with the terminal fascia. A short variable series of *Lysandra coridon* Poda ab. *fowleri* South, bred in the F₂ from a male *fowleri* paired to a typical female.

HOLLOWAY, J. & LEES, D.—An interesting exhibit showing photographs and living larvae of the Geranium Bronze *Cacyreus marshalli* Butler. The larvae feeding on *Geranium pyrenaicum* Burm.; these were taken as ova following observations of females ovipositing at Kingston near Lewes, E. Sussex. A detailed account was given of observations on 8–10 specimens between 21.ix.97 and 10.x.97.

This lycaenid is a resident of South Africa; it was accidentally introduced to Mallorca in 1989 on imported plants; it has spread to other Balearic islands and become a pest. One was found in a garden in Belgium in 1991.

JONES, A. M.—*Quercusia quercus* L. Two female ab. *obsoleta* Tutt lacking the usual purple patches on the upperside, one set as an underside showing homeosis with black upperside scaling on all four wings and legs (Plate V, Fig. 3). Two underside aberrations, a male ab. *anti-infraobscura* Goodson lacking the "bands" to the forewings and a female with similar forewings but ab. *latefasciata* Courv. hindwings. All reared June 1997. An extreme melanic male *Eurodryas aurinia* Rott. bred May 1997 from stock bred in captivity for 5 years. A male *Argynnis paphia* L. ab. *confluens* Spuler, captured in Surrey, 14.vii.97.

LEATHER, D. & M.—An example of the very rare ab. *millierei* Cabeau of *Vanessa atalanta* L. (Plate V, Fig. 4), taken at Ilkley Moor, W. Yorks, 7.ix.97.

PARKER, M.—A lightly marked male *Boloria selene* D. & S. taken with similarly marked specimens on 10.vi.97 at Blaen-y-cwm, Mynydd du forest, Gwent.

PORTER, J.—A female *Pieris brassicae* L. with reduced black hindwing scaling on the underside, Surrey 31.viii.97. Two female *Polyommatus icarus* Rott. showing

extremes of blue scaling, ab. *caerulea* Fuchs, Surrey, 29.v.91 and a brown example from Kent, 1.viii.97.

REID, I.—An example of *Celastrina argiolus* L. ab. *aquilina* Grund, taken 22.vii.97, and an extreme albino female *Maniola jurtina* L. ab. *cinerea* Cosmovici, taken 23.vii.97. The capture of the *argiolus* prompted a second visit to the site the next day with the resulting capture of the *jurtina*. The *jurtina* population was very small with a maximum count of 13 specimens.

REVELS, R. C.—The first part of the exhibit comprised wild caught aberrations including a fine *Maniola jurtina* L. bilateral gynandromorph, taken on 6.vii.97 from a small colony in Beds., only 20 typical specimens being seen during the course of the day. A *Ladoga camilla* L. ab. *nigrina* Weymer, one of two seen on the 14.vii.97 and possibly the first record for Beds. since 1955. A *Gonepteryx rhamni* L. ab. *pallida* Hannemann, a male taken on 23.vii.97 with pale female-looking ground colour. Two *Pieris rapae* L., an ab. *fasciata* Tutt and an ab. *flava* ter Haar, both taken from a population of 4-5000 nectaring on knapweed flowers in a Beds. woodland, viii.97. A male *Lysandra coridon* Poda ab. *fowleri* South and a female ab. *semisyngrapha* Tutt, both north Chilterns, viii.97.

The second part of the exhibit consisted of breeding experiments. *Aricia agestis* D. & S. ab. *glomerata* Tutt, from a female taken vii.96; the F₁ comprised 11 type and 7 *glomerata*. A pairing from *glomerata* parents resulted in only two small specimens in the F₂, both *glomerata*, showing a likely dominant gene; however, more comprehensive breeding would be needed to prove this. *Polyommatus icarus* Rott. ab. *radiata* Courv., further breeding including crossing with the ab. *basielongata* B. & L. gene from the stock of the late Les Young; this gave a result of 50% *basielongata* and 100% *radiata*. Selected pairings produced combined forms. *Aphantopus hyperantus* L. ab. *lanceolata* Shipp, an example reared from the A. S. Harmer stock; 7 *lanceolata* and 21 typical specimens emerged in the F₂.

ROUSE, T.—A bred female *Lycaena dispar batavus* Oberthür with bleaching to the right forewing. A pair of *Argynnis adippe* D. & S., bred in the F₄ generation from a Dartmoor female; both had heavy upperside spotting, (Plate V, Fig. 15).

STOKES, D.—The results of chilling freshly formed pupae. *Argynnis paphia* L., a male and female ab. *confluens* Spuler, the female also being f. *valesina* Esper. *Thecla betulae* L., examples with a reduction to the width of the underside forewing bands and an increase in the width of the hindwing bands.

SWIFT, S & WALKER, D.—An example of the South American lycaenid, *Chlosostrymon tela* Hewitson, found by Mr and Mrs Creese indoors at their home in Bishop Waltham on 7.iii.97 in fresh condition; this was subsequently photographed by G. Small and passed to the exhibitors on the 9.iii.97, badly worn. It was identified by Martin Honey of the National History Museum, London, and is presumed to be an accidental import.

TEBBUTT, P.—Amongst specimens caused by temperature shock to freshly formed pupae, the highlight was a very extreme, almost completely black ab. *nigricans* Oberthür of *Boloria selene* D. & S. (Plate V, Fig. 6), bred 25.v.97 following a combination of heat and cold shocks; another similarly treated specimen only showed minor increases in the black markings. Other species included *Ladoga camilla* L. ab. *obliterae* Robson and Gardner and ab. *nigrina* Weymer from cold shock. *Nymphalis polychloros* L. ab. *postnigrescens* Lempke, ab. *testudo* Esper and an unnamed aberration with a black costal blotch to the forewings but lacking black markings to the rest of the wing areas, from heat shock. *Aglais urticae* L. ab. *semiichmusoides* Pronin and ab. *nigricaria* Lambillion showing the difference between these two aberrations (*nigricaria* having darker hindwings and no blue lunules) also

from heat shock. *Inachis io* L. an ab. *teliodes-clara* with an orangey ground colour and a series of ab. *fischeri* Standfuss from long cold treatment.

Other bred specimens included *Hamearis lucina* L. with a whitish ground colour to the forewings. *Lycæna phlaeas* L. with reduced spotting ab. *parvipuncta* Tutt and ab. *oblitera* Scudder, also an example of the rare ab. *bipunctata* Tutt bred some years ago.

Amongst wild caught specimens were three extreme ab. *obliterae* of *L. camilla*, Northants, vii.97. An *A. urticae* with extreme black forewings from Northants. A pair of *Melanargia galathea* L. ab. *valentini* Williams from the Cotswolds. A most interesting *Pieris rapae* L. ab. *fuscata* Tatchell and Riley (Plate V, Fig. 10) with a mid brown ground colour. This was caught by P. Horsnail in a Northants front garden on 5.ix.97; it was kept alive for five days but failed to lay any eggs and a wild male refused to pair with it.

TREMEWAN, W. G.—Male and female examples of Irish *Polyommatus icarus* Rott. ssp. *mariscolore* Kane from various localities in the Burren, Co. Clare, 6–14.vii.97.

A female *Thymelicus sylvestris* Poda ab. *suffusa* Tutt from Cusgarne, near Redruth, Cornwall, 16.viii.97, the normal orange-fulvous coloration being suffused with dark brown on both the fore and hindwings.

BRITISH MACROLEPIDOPTERA

AGASSIZ, D. J. L.—*Dendrolimus pini* (L.), Guernsey, 4.viii.1996; *Hecatera dysodea* ([D. & S.]) two examples from Gravesend, Kent, 28.vi.1996, and 6.viii.1996—last seen in Britain in 1939 (Plate VI, Fig. 12). Examples of *Timandra griseata* (Peters.) and *T. comai* (Schmidt), two taxa split on the slenderest of grounds; should they prove to be genuine species then British examples will be largely *comai* although *griseata* may also occur.

BAKER, P. J.—From Thorpe, Surrey: *Xestia xanthographa* ([D. & S.]), immaculate example with darker central cross-band, 25.ix.1983; *Orthosia cruda* ([D. & S.]), melanic, 2.iv.1988. From West Hill, Devon: *Diarsia mendica* (Fabr.), wing shape and marking irregularities, 5 and 15.vi.1997; *Drymonia ruficornis* (Hufn.), pale form, 3.v.1997; *Ochropleura plecta* (L.), a dwarf with wingspan 21 mm., 4.ix.1996; *Ecliptopera silaceata* ([D. & S.]), 10.vii.1996; *Eupithecia dodoneata* Guen., 2.v.1997; *Eupithecia abbreviata* Steph., iii.1997; *Gymnoscelis rufifasciata* (Haw.), 18.vii.1996 and 10.iii.1997. From Hawkerland, Devon: *Epirrhoe alternata* (Müller, O. F.), aberration, 4.viii.1997.

BATTEN, A. K.—*Cerapteryx graminis* (L.), an aberration with the antler mark greatly extended, Dalwhinnie, Easternness, 11.viii.1997 (Plate VI, Fig. 4).

BRITTON, M.—*Psodos coracina* (Esp.), Drummochter Pass, Inv., 5.vii.1997, and Glen Tilt, Perth., 11.vii.1997. *Chesias rufata scotica* (Richardson), Killiecrankie, Perth., 6.vii.1997. *Aricia artaxerxes artaxerxes* (Fabr.), Glen Tilt, Perth., 10.vii.1997. *Epirrhoe rivata* (Hb.), Thirsk, Yorks., 22.viii.1997. *Nycteola revayana* (Scop.), reared from larva on oak, Dunnington, Yorks., 16.vi.1997.

CLANCY, S. P.—Moths from the Dungeness, Kent, area taken in 1997: *Drepana curvatula* (Borkh.), Dungeness, 11.viii.1997; *Hyles euphorbiae* (L.), Dungeness, 12.vi.1997; *Polia bombycina* (Hufn.), continental form, Lydd, 13.vi.1997; *Trachea atriplicis* (L.), Greatstone, 14.vii.1997; *Xanthia ocellaris* (Borkh.), Dungeness 1.x.1997; *Photodes extrema* (Hb.), Greatstone, 5.vi.1997; *Minucia lumaris* ([D. & S.]), Littlestone, 4.vi.1997; *Syngrapha interrogationis* (L.), Lydd, 21.vii.1997; *Parascotia fuliginaria* (L.), Greatstone, 11.viii.1997. Also: *Rheumaptera cervicalis* (Scop.), a short series bred from a female taken at Lydd, 8.viii.1996; *Pechipogo*